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A 1916 Prediction:

"I do not know of any class in America who are likely to be more powerfully affected in their business relations by the economic situation of the United States at the close of the European War than the farmers.

"The prices of agricultural products are soaring skyward. A period of rising prices almost invariably creates a speculative spirit. This speculative spirit grows by what it feeds on, and sometimes goes beyond the bounds of reason. In that case disaster is certain to come to somebody. The lucky ones who get out from under in time will make money; the others will become bankrupt.

* * *

"The best and soundest advice which I could give American farmers, therefore, is to be cautious. If you know exactly how long the war will last you can safely speculate. If you do not, you had better go slow. At all events, whatever you do, don't be in debt when the war closes, for if you are heavily in debt at that time I can predict your bankruptcy with about as much feeling of certainty as I can predict that the sun will continue to shine or the moon to wax and wane."

(Source: Thomas Nixon Carver. Professor of Political Economy, Harvard University. *In:* the University of California Journal of Agriculture. December, 1916.)

FARM FINANCE: DANGERS AND OPPORTUNITIES IN WARTIME

MURRAY R. BENEDICT[1]

EXPERIENCE AFTER WORLD WAR I

TWENTY YEARS AGO (1922) the farm people of America entered a trying period of readjustment. Prices had fallen almost 50 per cent in two years. Their farms were burdened with far heavier mortgage debts than ever in their history, and there were large amounts of personal and collateral loans that could not be met from the reduced incomes then prevailing. Because of an unwieldy debt and cost situation, the security of thousands of farm families was gravely threatened. Surprisingly enough, these conditions followed close on the heels of a time when farm incomes had been more than double those of any year before 1916.

The problems confronting agriculture at that time were the result of inflationary price increases, followed by deflation; of unwise speculation in land; and of a lost opportunity in the way of reducing outstanding debts. We are now in the midst of another war. Incomes are again reaching high levels. It will be helpful, therefore, to review briefly the main features of farm finance during that period and to appraise the wisdom of farmers' financial policies then. The similarities of current price and income conditions to those of World War I are sufficient to warrant an effort to draw such lessons as we can from this earlier experience.

For the four years, 1917 through 1920, cash income from farm production exceeded by some 27.0 billion dollars what it would have been had annual values been the same as those of 1914.[2] Expenditures for farm production rose also but not so much. Data are not available for all farm costs. Estimates have been made, however, for the more important items, namely, hired labor, feed, fertilizer, farm implements, machine operation, cotton ginning, taxes, and interest on farm mortgages. For the four years mentioned, the increase in these items amounted to about 8.6 billions over what they would have totaled had the 1914 levels of expenditures continued.[3] Thus if we ignore certain minor items of cost, there flowed into the hands of farmers during these four years somewhat more than 18 billion dollars in excess of what would have come to them had prices, quantities, and costs remained at 1914 levels.

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[2] See: United States Department of Agriculture. Agricultural Statistics 1941: 554. 1941.

[3] Data from: United States Department of Agriculture. Agricultural Statistics 1937:386. 1937.

What became of this 18 billions? Part of it, of course, went in higher expenses for living, such items as clothing and purchased foods. These increases, however, were much smaller for farm families than for city dwellers since, in general, the farms continued to furnish food and shelter as in earlier periods. Costs for home-grown foods did not change significantly, and housing costs did not increase to any such extent as did those of city dwellers.

Considerable amounts of the increased income of farmers went, of course, into Liberty Bonds. Unfortunately, much of this investment found its way eventually into speculative ventures of one kind or another which yielded little permanent benefit to farm people. Other substantial amounts went into the purchase of farms at seriously inflated values. Most of this amount, as will be shown later, was wiped out in the deflation that followed.

The Course of Farm-Mortgage Debt and Land Prices in the United States.—Leaving aside for the present a fuller discussion of the income situation, let us consider what happened to farm debts during these years, for it was this aftermath of heavy indebtedness that caused much of the acute distress in farm areas, and constituted the gravest threat to the security and well-being of farm families.

Farm-mortgage debt in the United States in 1914 amounted to approximately 4.7 billion dollars. By 1921 this had more than doubled and stood at over 10.2 billions.[4] In addition, there had been a marked increase in short-term debt, much of which was destined later to be merged with the mortgage debt shown above. Thus, total mortgage debt did not reach its peak of nearly 10.8 billions until 1923, more than two years after the abrupt decline in farm prices which occurred in 1920.

It will be seen that during a four-year period in which the increased value of United States farm production had exceeded cost increases for major items by some 18 billion dollars, farmers were actually in a worse position than when this period started. They did not get out of debt nor even reduce their indebtedness. Instead, the load of mortgage debt burdening American farms had been increased by nearly 5 billions (1917 through 1920). While debts had thus been increased markedly, the incomes out of which they were to be paid had declined sharply. Total cash income for 1919 was estimated at 14.4 billions. By 1921 this had fallen to 8.1 billions. Through most of the twenties, it showed a gradual increase, moving up to 11.2 billions in 1929. Costs declined much more slowly than did incomes, and some actually continued to increase.

Not only had American farmers burdened themselves with a large ad-

[4] United States Department of Agriculture. Agricultural Statistics 1941:594. 1941.

ditional private debt; they also carried a share in the burden of increased public debts, particularly those of states, counties, and school districts. Debts of this kind grew enormously during these years. This is illustrated in part by the growth of farm taxes, which stood at 393 million dollars in 1919 but did not reach their peak of 567 millions until 1929. They did not again fall below the 1919 level until 1933. (Such tax increases were not, of course, due solely to increased public debts. Both the amounts of public service provided and their costs had been increased, and did not decline correspondingly when farm incomes fell off.)

The full effect of this heavy load of farm debt did not appear until a few years later, as may be seen from the record of farm bankruptcies. Although the number of bankruptcies is not an accurate measure of financial distress among farmers, since bankruptcy is not the usual form of adjustment adopted by farmers,[5] changes in numbers of bankruptcies give some indication of the increase in finanical distress. From 1910 to 1914, inclusive, the average annual number of farm bankruptcies was 870. For the next five years (1915 to 1919), the average number was 1,530. By 1924 the number had reached serious proportions: 7,772 cases were reported for that year. The two succeeding years showed similar high levels: 7,872 and 7,769. The number of bankruptcies fell off slowly in the succeeding years and has not since reached numbers as high as those of the years just mentioned.

In 1926 the number of farms changing hands by involuntary sale, that is, by forced sale, tax delinquency, mortgage foreclosure, and bankruptcy, amounted to 21.6 farms per 1,000. This number, except for a slight decline in 1928 and 1929, crept steadily upward until 1933, in which year there were 54.1 such involuntary transfers per 1,000 farms: during that year alone, one farmer out of every twenty throughout the United States suffered the loss of his farm. During the five-year period, 1932 through 1936, nearly one fifth of all farms in the United States changed hands by forced sale of one kind or another.[6] It was thus that some of the excessive debt assumed in 1919 and 1920 was liquidated.

But this tells only part of the story of what became of the 24 billion

[5] It is more usual for farmers to surrender the farm or to let it go through foreclosure than to apply for the formal court process of bankruptcy. Thus the financial distress was far more widespread than would be indicated by the record of bankruptcies.

[6] This is on the assumption that the same farm did not go through such sale more than once during this period.

Data on which these statements are based are taken from:

[United States Bureau of Agricultural Economics.] The farm debt problem. U. S. 73d Cong. House Doc. 9:27. 1933.

Stauber, B. R., and M. M. Regan. The farm real-estate situation, 1935–36. U. S. Dept. Agr. Cir. 417:26. 1936.

Regan, M. M. The farm real estate situation, 1936–37, 1937–38, and 1938–39. U. S. Dept. Agr. Cir. 548:1–41. 1939.

dollars[7] of agricultural assets which disappeared in the past twenty-five years. Not all farms were bought with borrowed money. Some of the additional income went into competitive bidding for lands, often on a speculative basis. In 1914 the value of farm real estate in the United States was estimated at 39.6 billion dollars. By 1917 this stood at 45.5 billions. In the succeeding three years, United States farm lands were

TABLE 1

FARM REAL ESTATE: INDEX NUMBERS OF ESTIMATED VALUE PER ACRE (1912–1914=100)

Year	United States	California	Year	United States	California
1912	97	93	1928	117	161
1913	100	99	1929	116	160
1914	103	108	1930	115	160
1915	103	111	1931	106	158
1916	108	116	1932	89	133
1917	117	130	1933	73	109
1918	129	136	1934	76	110
1919	140	142	1935	79	115
1920	170	167	1936	82	119
1921	157	168	1937	85	124
1922	139	166	1938	85	123
1923	135	165	1939	84	121
1924	130	164	1940	84	121
1925	127	164	1941	85	122
1926	124	163	1942	91	128
1927	119	162			

Sources of data:

Data for United States to 1939, inclusive, from: United States Department of Agriculture. Agricultural Statistics **1941**:583. 1941.

Data for California to 1939, inclusive, from: The farm real estate situation, 1936–37, 1937–38, and 1938–39. U. S. Dept. Agr. Cir. **548**:5. 1939.

All data for 1940, 1941, and 1942 from: United States Bureau of Agricultural Economics. Farm real estate values show general rise during the past year. 3 p. April 13, 1942. (Mimeo.)

bid up to 66.3 billions, an increase of 20.8 billions. This is, of course, not all represented in land sales: it is the amount by which the valuations placed on the nation's farm lands were increased, whether they had been sold or had remained in the hands of former owners. This increase in the capitalization of farm lands did not in itself increase the earning power of the lands in any way. It was simply a heavier capitalization carried by farmers on essentially the same lands and in this respect represented an additional financial burden for operating farmers to carry. By 1933 this value had shrunk again, not only to 1914 levels but far below them. The 1933 valuation of 30.7 billions was well below even the 34.8 billions estimated value of farm lands in 1910.

It is apparent, then, that in this quarter century the farmers of the United States had gained little from their temporary period of pros-

[7] That is, 18 billion dollars in additional income plus 6 billions of increased indebtedness.

perity, had invested heavily in expected future high incomes from lands, and had suffered capital losses similar to those which befell the holders of common stocks in 1929.

Fig. 1.—Farm real estate: index numbers of estimated values per acre (1912–1914=100); United States and California, 1912–1942. (Source of data: table 1.)

The Course of Land Prices and Mortgage Debt in California.—Thus far we have been considering the debt situation for the United States. It is appropriate to point out here, however, that the course of events differed in California from that of the nation as a whole, though the general implications are much the same.

Between 1914 and 1919, California land values rose earlier and faster than those for the United States but did not quite reach the peak attained for the country as a whole in 1920. After 1920, California valuations fell off much more slowly than did those for the United States and have remained higher up to the present time, in terms of relation to 1912–1914 values. This comparison is shown in table 1 and in figure 1.

The reasons for this difference are to be found both in the character of the crops grown and in the stage of development through which California agriculture was passing at that time. Through most of the twenties, industrial activity in the United States was at a relatively high level and much of the urban population was prosperous. The nation's food habits were changing in the direction of more use of fruits and vegetables and less use of wheat and other starchy foods. Both factors were favorable to many of the specialty crops grown in California. Furthermore, California's own population was growing at an unprecedented rate.[8] Large amounts of capital were flowing into the state from other parts of the United States. It was a period of relative optimism as far as new investments in agriculture were concerned. Between 1919 and 1929 the grape acreage of the state increased by 94 per cent. Lemons and oranges, which had experienced a large acreage increase in the previous decade, showed a substantial further increase of 25 to 30 per cent. Subtropical fruits and nuts gained 82 per cent. Vegetables and temperate-zone fruits likewise were expanded greatly, the former increasing by 91 per cent, the latter by 63 per cent.

The optimism which would lead to these large plantings would naturally have a stimulating effect upon land prices. Most of these investments were not expected to yield returns until several years later. Hence, in most lines the effects of these heavy increases in production were not yet apparent in the market. Troublesome surpluses were to appear in the thirties, however.

As a result of the influences mentioned above, California land values did not, during the twenties, follow closely the downward trend of those of the United States. As late as 1930 they were only 8 points below the peak figure of 168 (1912–1914=100), which was reached in 1921. There was a sharp drop in the early thirties, though the level still remained significantly higher than that for the nation as a whole.

Great care is needed in making any assumption that California land prices will continue to show this distinctive behavior. They will no doubt continue to reflect price conditions for the products characteristic of the state rather than those for crops more common in other parts of the country. These may, however, be either lower or higher relatively than the general average for the United States. The period of most rapid intensive development of California farm lands is probably past. The change in food habits will probably continue, possibly at a faster, possibly at a slower rate. The local population is continuing to increase at a rapid rate, and this should lend strength to the local markets for specialty crops. On the other hand, the plantings of the twenties have

[8] In terms of total numbers.

now come into much fuller production, export markets for some products have been seriously curtailed, and in some cases, important competitive areas are increasing their production.

Taking all factors into account, it seems likely that land prices in California will follow a somewhat different pattern from those of the United States and one which will vary considerably from area to area within the

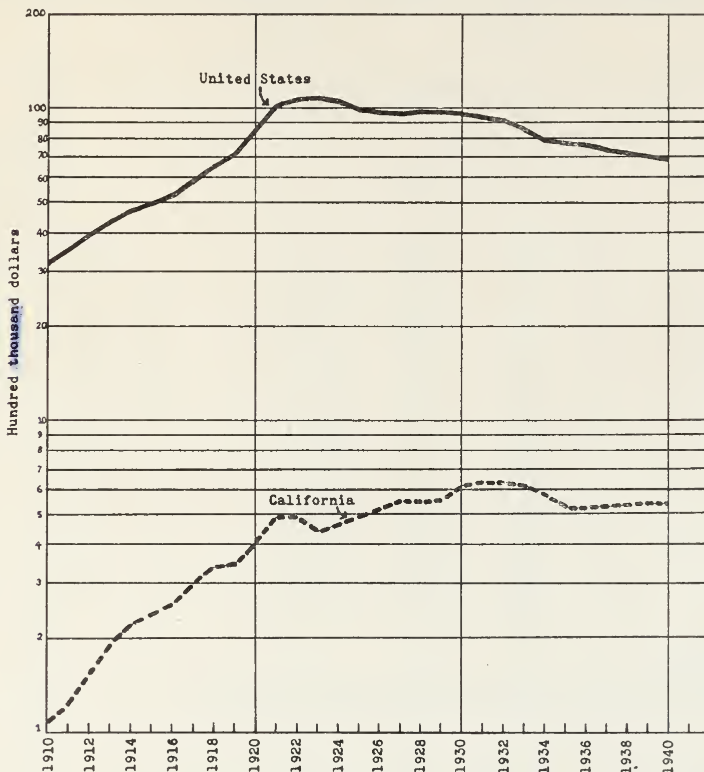

Fig. 2.—Relative changes in farm-mortgage debt by years, California and the United States, 1910–1940. (Source of data: table 2.)

state according to the price conditions for the various crops. It seems unlikely, however, that they will have the support of such a prolonged period of optimism and rapid development as that which marked the period from 1910 to 1930.

From 1910, the earliest date for which estimates are available, the California farm-mortgage debt grew, for the most part in modest increments, until 1920. In that year it increased by 60 million dollars and in the following year by 85 millions. After a brief and slight recession, the upward trend was resumed in 1924, and did not reach its maximum until 1932. Thus the expansion of mortgage debt in California continued for

nearly ten years after the peak had been reached for the United States as a whole. These changes and relations are shown in table 2 and figure 2.

As of January 1, 1935, it is estimated that 67,444 California farms were mortgaged.[9] This number included 55,234 owner-operated farms and 12,210 operated by tenants and hired managers. Individual mortgages were much larger on the manager and tenant farms: here they averaged $16,388, while on owner-operated farms the average size of

TABLE 2

ESTIMATED FARM-MORTGAGE DEBT BY YEARS, CALIFORNIA AND THE UNITED STATES, 1910–1940

Year	California	United States	Year	California	United States
	million dollars	*million dollars*		*million dollars*	*million dollars*
1910	107	3,208	1926	520	9,713
1911	122	3,522	1927	551	9,658
1912	152	3,930	1928	546	9,757
1913	191	4,348	1929	557	9,757
1914	220	4,707	1930	615	9,631
1915	239	4,991	1931	637	9,458
1916	256	5,256	1932	638	9,214
1917	300	5,826	1933	623	8,638
1918	338	6,537	1934	580	7,887
1919	345	7,137	1935	533	7,786
1920	404	8,449	1936	525	7,639
1921	489	10,221	1937	533	7,390
1922	489	10,702	1938	539	7,214
1923	441	10,786	1939	543	7,071
1924	462	10,665	1940	542	6,910
1925	493	9,913			

Source of data:
Horton, Donald C., Harald C. Larsen, and Norman J. Wall. Farm-mortgage credit facilities in the United States. U. S. Dept. Agr. Misc. Pub. **478**:219, 220, 221. 1942.

mortgage was $5,378. Approximately half (49.8 per cent) of all owner-operated farms in the state were mortgaged and nearly 31 per cent of the manager- and tenant-operated farms.

In addition to the mortgage debt shown above, the farmers of California owe substantial but fluctuating amounts on personal and collateral loans. As of January 1, 1941, these amounted to 95.2 million dollars. Of this, 79.3 millions was in the form of commercial bank loans. The production-credit associations held 9.7 millions, Farm Security 5.7 millions, and the Emergency Crop and Feed Loans Office 0.5 million.[10]

[9] Data from: United States Bureau of the Census and United States Bureau of Agricultural Economics. Farm mortgage indebtedness in the United States (detailed summary). 12 p. Coöperative Survey. August 26, 1937. (Lithoprinted.) (Some of the data secured in the 1940 Census have been published but as yet these have not been fully analyzed.)

[10] United States Bureau of Agricultural Economics. Agricultural loans in California. p. 12, 17. Washington, D. C. April, 1942. (Mimeo.)

TABLE 3

Cash Income from Farm Marketings

Year	United States		California	
	Cash income from sales of crops, livestock, and livestock products	Government payments	Cash income from sales of crops, livestock, and livestock products	Government payments
	million dollars	*million dollars*	*million dollars*	*million dollars*
1910	5,785	...	—	...
1911	5,581	...	—	...
1912	5,966	...	—	...
1913	6,251	...	—	...
1914	6,015	...	—	...
1915	6,391	...	—	...
1916	7,755	...	—	...
1917	10,648	...	—	...
1918	13,464	...	—	...
1919	14,436	...	—	...
1920	12,553	...	—	...
1921	8,107	...	—	...
1922	8,518	...	—	...
1923	9,524	...	—	...
1924	10,150	...	508	...
1925	10,927	...	560	...
1926	10,529	...	577	...
1927	10,699	...	606	...
1928	11,024	...	633	...
1929	11,221	...	690	...
1930	8,883	...	568	...
1931	6,283	...	447	...
1932	4,682	...	360	...
1933	5,278	131	407	2
1934	6,273	447	466	8
1935	6,969	573	515	8
1936	8,212	287	613	3
1937	8,788	367	692	6
1938	7,649	482	563	12
1939	7,852	807	592	19
1940	8,331*	766*	641	22
1941	11,185*	586*	849	20

* Preliminary.

Sources of data:

United States figures, 1910–1937, from: United States Department of Agriculture. Agricultural Statistics **1941**:554. 1941.

Other figures from: United States Bureau of Agricultural Economics. Farm value, gross income, and cash income from farm production. [Title varies.] Annual issues, August, 1930–February 26, 1942. (Mimeo.)

FARM INCOMES, CALIFORNIA AND THE UNITED STATES

Brief reference has been made to the fluctuations in United States farm income during and after World War I. For the convenience of the reader, these data are presented more fully in table 3 and figure 3. While estimates are available back to 1910 for the United States as a whole,

those for California go back only to 1924. Hence it is not possible to show the course of California farm income during and immediately after the last war.

United States farm incomes for 1942 will undoubtedly be much higher than those of recent years. Prices of farm products for the first quarter of 1942 averaged more than a third higher than for the first quarter of 1941, and the volume of marketings for a number of the livestock prod-

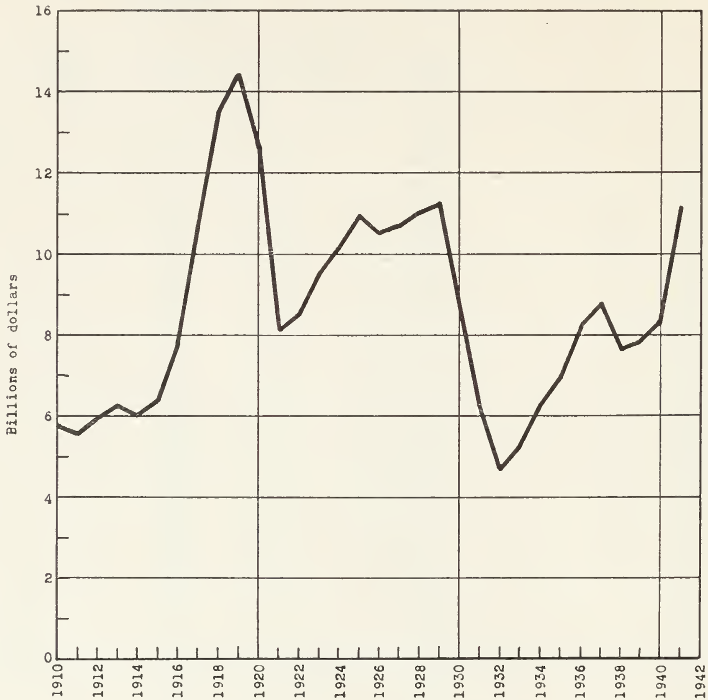

Fig. 3.—United States cash income from farm marketings, 1910–1941. (Source of data: table 3, col. 1.)

ucts was larger than a year ago. The latest estimate of 1941 cash farm income is 11.8 billion dollars as compared to 9.1 billions in 1940. Current and prospective economic conditions suggest that 1942 income will be close to 14 billions. The largest income on record was that of 14.6 billions in 1919. Income per farm and per capita will probably set a new high record this year.[11] The income of California farms may well pass the billion-dollar mark.

The index of prices received by farmers stood at 93 in 1939 (1909–1914=100). In April, 1942, it stood at 150. This is an increase of more than 60 per cent in less than three years and far exceeds the rate of increase in prices of all commodities or in the costs of things farmers

[11] George, Frank. Income: increase. Agricultural Situation 26(3):6. 1942.

buy. The index for wholesale prices of all commodities rose in the same period from 113 to 144 (approximately 27 per cent). Prices for products used by farmers for living rose from 120 to 150 (to March, 1942) ; those for commodities used in production from 122 to 149 (to March, 1942). Farm wage rates increased from 123 to 167 in the same period. They have, of course, risen more than this in some areas and for some tasks.

During World War I, prices of farm products rose between 1914 and 1917, a comparable period, from an index of 101 to 175. Thus it will be seen that the rise was more rapid in that period. Yet the rate of increase over the past two years is certainly enough to cause grave concern. In considering inflationary effects, the most important problem is the rate of increase rather than the justice or injustice of the level from which the advance started, or that of the level it has reached. It is evident that a price increase for a major group of products so rapid as to gain more than 50 per cent in less than two and a half years is bound to be seriously disturbing to the whole economy if not checked.

A continued rise in food costs and other living expenses is certain to set in motion far-reaching changes which will eventually react to the disadvantage of farm people. Powerful demands for wage increases will result; salaries of public employees will have to be adjusted; costs of supplies will increase. These are the very items that do not fall so rapidly as do the prices of farm products when the spree is over. Thus farmers may find themselves saddled not only with larger debts (if the higher prices lead to land speculation) but with higher taxes, increased wage rates, and many other items which will make for slow and painful readjustment a few years hence. Farm taxes, for example, rose during and following World War I from an index of 118 in 1914 to 281, but this peak figure did not come until 1929, almost ten years after the drop in farm prices. In California the increase was still more marked (from 124 in 1914 to 332 in 1928). Wages in the United States stood at 105 in 1914, but by 1920 they had reached 240. In 1932, twelve years after the fall in farm prices, they still stood at 189.[12]

It seems evident that regardless of views about parity and other goals, farmers are likely to find their longer-term interests damaged by price increases that are so large and so rapid as to set up an inflationary spirit. There can be little doubt that in World War II, as in World War I, farm prices led off the procession. This is not, of course, to say that other advances would not have occurred had farm prices remained stable. It does emphasize, however, the stake farmers have in policies which will keep all prices relatively stable.

[12] Warren, G. F., and F. A. Pearson. Prices. p. 206. John Wiley and Sons, Inc., New York, N. Y. 1933.

FARM COSTS IN RELATION TO INCOME

The farmer's financial situation is reflected only in part by the record of income changes. Costs also have an important bearing on amounts available for debt repayment or capital increase. They react more slowly than do prices of things the farmer sells. Prices of farm products are more flexible than those for most commodities and services. With sharply increased demand or curtailed supply, they tend to rise quickly, and under opposite circumstances to decline with equal or greater abruptness.

As previously indicated, both in World War I and World War II, agricultural prices have been near the head of the procession in the upswing, and the changes have been both rapid and large. In the earlier period, farm prices jumped from 98 in 1915 to 175 in 1917. Two years later they had reached 213. In this war they have moved up from 98 in 1940 to 150 in April, 1942. They had reached 143 as early as December, 1941. The all-commodities index moved up nearly as much between 1915 and 1917 (from 102 to 172). This, however, included a number of commodities which had spectacular rises because of wartime conditions but did not bulk large in the farmer's purchases. Chemicals, for example, had already risen to 138 by 1915 and stood at 203 in 1917. Textiles likewise had risen from 96 to 175. On the other hand, household furnishings and "miscellaneous items" had moved up only from 103 to 136 and from 79 to 111, respectively.[13]

On the down side we have seen that farm prices are likely to show much quicker adjustments than those of many other types of commodities. They dropped from 213 in 1919 to 125 in 1921, and again in the early thirties they fell from 126 in 1930 to 65 in 1932. Even with the far-flung and costly efforts at price support applied during the late thirties, farm prices fell from 121 in 1937 to 93 in 1939. In contrast, commodities used in farm production declined only from 192 in 1919 to 141 in 1921. Commodities used in family living did not reach their peak until 1920, when they stood at 222. Their downward adjustment from 1919 to 1921 was from 210 to 161.[14] Farm taxes continued their upward trend until 1929, when they stood at 281 as compared to 200 in 1919 and 259 in 1921.

Even if the index of the prices of things bought by farmers moved up at the same rate as that of products sold by farmers, the higher incomes now being received by farmers would still leave larger balances available for debt retirement, for savings, or for consumption. Only part of

[13] United States Department of Agriculture. Agricultural Statistics **1941**:559. 1941.

[14] United States Department of Agriculture. Agricultural Statistics **1941**:555. 1941.

the cost of farm operation is in the form of cash outlays. If most of the labor is hired, this is a cash cost and offsets a considerable part of the increase in farm income. If the labor is largely or wholly supplied by the farm family, a rising level of wages is reflected in more money for the farm family to spend. Supplies, taxes, and costs for groceries and clothing are cash costs, but the several other items such as food and shelter furnished by the farm, interest on owned investment, and depreciation, unless equipment is actually replaced, are not cash items and may be costing little if any more than in periods of lower prices. Interest charges also, unless debt is increased, will remain relatively constant. Thus despite increases in many of the cost items, net farm income is likely to increase during a period of rapidly rising prices, unless practically everything, including labor, is bought for cash.

In these circumstances an atmosphere of false prosperity is created. Eventually, however, costs catch up and after farm incomes decline tend to remain higher than before the rise and fall in farm incomes. Hence, if obligations have been taken on on the basis of this temporary enlargement of spendable income, hardship is bound to result.

LONG-TERM TRENDS IN LAND VALUES

Until around 1900, land prices were established in relation to an undeveloped frontier on which lands were still available for homesteading. Farmers and prospective farmers had the alternative of buying lands in the older farming areas or of undertaking the hardships, uncertainties, and delay of developing a farm from the raw lands still available in the West. Such lands were by no means "free" as compared to those in the East and Middle West, but the form of payment was different. In these new areas, roads, schools, buildings, towns, and other items of capital had still to be provided. Rainfall was more uncertain and markets were distant. The savings which created the private and public structures on these lands had to be provided through the privations of the settlers, except for such amounts as were borrowed. Records of land prices during this time are meager and scattered. We may conclude, however, that an important if not a major factor in their determination was the cost in terms of hardship, time, and money, of developing available homestead lands in the West. The relation of land value to farm incomes and to the business situation was apparently less direct than in later years.

By 1900, or before, good lands available for homesteading had become very scarce and the tide of pioneer settlement, which had lasted for nearly three centuries, had about run its course.

From the late nineties until 1914, there was a significant and fairly

rapid rise in farm prices. This, coupled with the growing scarcity of land for homesteading, brought about a continuing increase in the prices of farm lands such that farmers came to look upon these increases as normal and a significant noncash item in their incomes. They were generally willing to bid up the price of land beyond the level of a direct capitalization of its current cash earning power. That is, if land was earning $6 per acre per year net and the customary rate of interest was 6 per cent, it would yield a customary rate of interest on $100. Actually such land was likely to sell at $150 per acre or even more, which put it on a basis of 4 per cent or less in current earnings. The farmer, however, expected it to rise 1 or 2 per cent a year in value so that he would get his normal return on investment, even though it remained a noncash item retrievable only at some later period in life when the farm was sold, or in the form of higher rents expected to be attainable after a few years of increasing land values.

These increasing valuations on farm lands also enlarged the borrowing power of farmers and contributed to a rising volume of mortgage debt. Mortgages could be allowed to run indefinitely or even could be added to without much pressure for repayment on the part of lenders, since the security back of the mortgage was increasing in value.

After 1913 this tendency was accelerated. By 1917, when we entered the war, the index number for farm-land prices in the United States had advanced from 100 in 1913 to 108 in 1916, an increase of 2⅔ per cent a year. It was in the next four years, however, that the large and, as it later proved, disastrous increases occurred. Land prices went to 117 in 1917, to 129 in 1918, to 140 in 1919, and to 170 in 1920.[15] The greatest increase of all occurred after the close of the war. It resulted from the speculative impulses already set in motion and from the continuation through 1919 of high prices for farm products. Many farmers had come to believe that prices were on a permanently higher level. The fact that prices did not decline significantly immediately after the Armistice tended to clinch this belief.

After 1920 began the long and painful readjustment which resulted from a reversal of this upward trend that had lasted for more than twenty years. By 1933 the index of United States farm-land values had dropped to 73, 27 points below what it had been in 1913. During these thirteen years (1921–1933) the prices of farm lands showed an average decline of more than 7.4 per cent a year. The large decreases, which make up a good part of this average, occurred in 1921 and 1922 and in 1932 and 1933. It is evident that no farm owner who was not in a strong finan-

[15] United States Department of Agriculture. Agricultural Statistics 1941:583. 1941.

cial position could stand declines of such magnitude without finding himself in difficulty.

The extremely low prices of 1933 were in part a result of the great number of distress sales occurring at that time and did not represent farmers' real estimates of future earning power of the lands. Great numbers of mortgages were falling due. Many creditor agencies, under necessity of making their assets more liquid, were unable or unwilling to renew mortgages. New sources of funds were in the main unavailable until 1933, when the United States Government reorganized the federal-farm-credit agencies and broadened their capacity to make loans. Since these agencies afforded almost the only significant source of new loans at that time, transfers to them reached unprecedented volumes. In 1933 the federal land banks had outstanding loans of 1.1 billion dollars. By 1937 these had reached 2.1 billions, and land bank commissioner loans which had been initiated in 1934 stood at 836 millions.[16] During 1934 the volume of land bank and land bank commissioner loans made reached the staggering figure of 107 millions a month.[17]

This mammoth program of refinancing, together with the washing up of a good part of the most desperate cases, brought a check to the downward trend of land prices. With gradually improving conditions, prices began to improve and by 1941 had reached an index of 86, which was still 14 points below the 1913 level.

A release by the United States Department of Agriculture under date of April 13, 1942, states that farm-real-estate prices have risen about 7 per cent in the 12 months March 1, 1941, to March 1, 1942. This is much the most spectacular rise of recent years and comes within 3 points of the increase of 1916 to 1917. It has led to some fears that the unfortunate episode of 1917 to 1920 is about to be repeated.

LIKELIHOOD OF A SLUMP AFTER THE PRESENT WAR

Predicting for the future in a world so torn by struggles and forces of unprecedented magnitude is indeed a hazardous undertaking. Many new types of economic and monetary control have come into use since 1920. Most of them are too recent for safe appraisal of their effectiveness and long-term results. In the United States we have tried easy-credit and low-interest policies, gold buying, dollar devaluation, deficit spending, crop control, and farm subsidies; in fact, nearly the whole gamut of plans for raising the prices of farm products and industrial goods. Some

[16] United States Department of Agriculture. Agricultural Statistics 1941:594. 1941.

[17] United States Bureau of Agricultural Economics. Federal land bank and land bank commissioner loan activity decreases. Agricultural Finance Review 1(2):60. 1938. (Lithoprinted.)

Fig. 4.—Index numbers of United States wholesale prices of all commodities, 1776–1941 (1910–1914=100). (Sources of data: 1776–1932 from: Warren, G. F., and F. A. Pearson. Wholesale prices for 213 years, 1720 to 1932. Part I. Wholesale prices in the United States for 135 years, 1797 to 1932. New York [Cornell] Agr. Exp. Sta. Memoir 142:6–10. 1932. 1932–1941 from: United States Bureau of Agricultural Economics. Agricultural Situation 26[6]:24. 1942.)

degree of recovery was achieved during the thirties, but the results were not all that was expected by the sponsors of these programs, and the prices of most products did not approach those of 1919. Not until the appearance of the huge demands occasioned by the outbreak of World War II did prices of farm products show rapid and important increases. Thus there is good reason to believe that war demand is the most important factor in maintaining the current levels of prices. It is, of course, a factor that will cease to operate after peace comes.

It is unsafe to judge the future too exclusively by the past. This is a mistake some of the military leaders seem to have made in the present war. Yet despite the differences in method, the results of the struggle seem now to be taking on again many of the broad outlines of the 1918 picture, with Russia and France exchanging roles. Likewise in the realm of economic affairs, the various war periods seem to show important similarities despite widely differing conditions of economic development and monetary and banking structure.

If we ignore the Mexican and Spanish wars, which had only minor economic effect, the United States has passed through four major war periods: the American Revolution, the War of 1812, the American Civil War, and World War I. Two of these, the War of 1812 and World War I, were associated with world-wide dislocations of trade. The other two, while not so definitely connected with major wars abroad, came in periods of unsettled and precarious conditions in Europe.

The pattern of price behavior is surprisingly similar in all four periods. Prices rose rapidly during the wars and fell sharply after them.

Thus in the Revolutionary period the index of wholesale prices (1910–1914 = 100) rose from 86 in 1776 to 226 in 1779.

In the Napoleonic period it rose from 115 in 1808 to 182 in 1814.

In the Civil War period it rose from 89 in 1861 to 193 in 1864.

In the period of World War I it rose from 99 in 1914 to 226 in 1920.[18] These changes are shown graphically in figure 4.

All of these increases were followed by rapid postwar recessions. In the first period the nation was undeveloped, was, in fact, almost wholly agricultural. It had no developed monetary system and little in the way of banking and government organization. By 1918 it had a huge and complicated industrial organization and a far more developed monetary system and banking organization. Yet prices followed much the same course in both cases.

Can we, then, safely conclude that because of new devices and policies

[18] Warren, G. F., and F. A. Pearson. Wholesale prices for 213 years, 1720 to 1932. Part I. Wholesale prices in the United States for 135 years, 1797 to 1932. New York (Cornell) Agr. Exp. Sta. Memoir 142:6–10. 1932.

we have come into a new era where things will not happen that way again? In 1919 many farmers were convinced that the higher price level was permanent and there would not be a return to the prewar levels. Yet in only a few years thereafter the prices of many farm products were well below those of 1910 to 1914. Again, one must caution that predictions are dangerous. Yet when a farmer buys land at inflated prices during a war period, he is predicting that war prices will continue. We cannot say that they will not, but thus far the experience is 4 to 0 that they will return to substantially lower levels than those now existing.

The extent of such a drop is, of course, dependent in large measure upon the magnitude of the rise during the war period. At the present time, much more drastic attempts are being made to control the upswing than were undertaken in any previous war period. If these efforts are successful, the urge to speculate in land may be substantially lessened, the costs of the war will be far lower, and the prospects of a disastrous postwar slump or chaotic inflation will be markedly decreased.

REASONS FOR USE OF CREDIT

The purpose of credit is to put buying power in the hands of those who can make the most effective use of it. The justification for borrowing, on the part of the borrower, is the belief that he can make the borrowed funds earn more than he has to pay for them, in the way of interest and risk. The justification on the part of the lender is the belief that the net interest (contract rate minus risk cost) will yield him more than he could make by using the funds himself. Often, of course, the lender is in no position to make any use of the funds and wants only safety plus whatever earnings he can obtain.

The borrower is thus compelled to make an estimate of the returns out of which the interest payments and principal can be paid. For short-term loans such estimates can be made with a fair degree of assurance, estimates being subject only to the characteristic production hazards and year-to-year price variations. For longer-term loans the unpredictable and sometimes ruinous hazards of a fall in the general price level are involved. Thus, on the basis of 5 per cent interest, if a farmer buys 100 acres of land currently yielding a net return of $10 per acre, he will pay $20,000 for it. Possibly half of this, or $10,000, is his own investment and half is borrowed. If he plans to pay this off at the end of twenty years, he would normally expect to pay over the twenty years $10,000 in interest and to forego whatever return he might have had on his own $10,000. If that could have earned, say, 3 per cent, the total cost for the twenty years, assuming no change in land earnings or land values, will have been $16,000. To cover this, he will expect to obtain a net return

averaging $10 per acre per year, or $20,000. This would be the situation if no speculative gains or losses were involved and if annual payments on principal were not made. If, however, net earnings of the land should fall by only as much as $5 per acre per year during this period, the true value of the farm at the end of this time would be only $10,000. The total cost to the farm purchaser will then have been $10,000 interest on the mortgage plus the $6,000 interest on his own investment, which he might have secured had he not invested it in land, plus also the $10,000 of capital value lost. This is a total of $26,000 or an annual cost of $1,300, whereas his original expectation was only for an earning of $1,000 a year from the land. In the meantime, this earning will have fallen to $500 a year.

The usual practice now, of course, is to make some payment on the principal year by year, which would reduce the total cost for interest. The general principle, however, is that illustrated.

It is also true that the earnings of the land, and in consequence its price, may rise rather than fall and thus a profit will be shown. But if we can judge by the experience of the past twenty years, land purchased in a period of high prices is more likely to decline in value than to increase. While the illustration may seem extreme as to the amount of decrease, the figures show that for the nation as a whole an even greater decline in land values did occur in less than twenty years. The index of estimated value per acre fell from 170 in 1920 to 73 in 1933.

No one can say whether this situation is likely to be repeated. Factors which appear to make improbable a sustained advance in the valuation of farm real estate in the United States are the following. We have a large, developed capacity for farm production. Population is not increasing at rates that previously prevailed. Thus consumption of farm products cannot be expected to increase so rapidly as in some earlier periods. Several competing agricultural areas have been undergoing rapid development and mechanization in recent years, notably Canada, Australia, Argentina, Brazil, South Africa, and Russia. Interest rates are the lowest in our history. (An annual income capitalized at a low rate of interest makes for a high valuation in land.) Markedly higher interest rates do not seem in prospect, but on the other hand, there seems little likelihood of significant lowering of the rates now prevailing. Thus the majority of the factors involved do not point in the direction of markedly higher values in land in the longer-term postwar period.

On the other side of the picture is the possibility of monetary inflation, which might increase land values markedly if it occurs. This would appear in the form of higher prices and incomes, which presumably would make the retirement of debts easier. Predictions about this are

of little value at the present time. It is evident that the government will use very drastic methods to prevent inflation. The experience of other warring countries indicates that a considerable measure of control can be achieved if the action taken is sufficiently comprehensive and forceful. Even though inflation should take hold, however, past experience indicates that prices would again recede long before most farm mortgages incurred in the inflationary period had been paid off. Speculative undertakings looking to purchase and resale at an advance in price during an inflationary period are, of course, on a par with speculation in common stocks or in commodities and present the same opportunities and dangers. In general, speculation of this kind is dangerous for those whose financial condition makes them unable to afford losses if prices take an unexpected turn.

Why, then, do farm families undertake the risks of land purchase? There are a number of reasons, aside from the purely financial. One is the desire for an assured place of residence and work opportunity. Another is the satisfaction and pride in ownership of land. Still others are the desire to round out an operating unit to a more efficient and satisfactory size or makeup and the desire to put savings into a form which seems substantial and one in which the farmer feels he knows values.

These are desirable aims and should be encouraged provided they do not result in excessive bidding up of values and the assumption of dangerous and unwieldy loads of debt. As in the purchase of stocks or other investments, many of the dangers are avoided if purchases can be made outright with little or no borrowing. Then losses of money values may occur, but the real property remains and continues to be an asset rather than a liability, even though a smaller one than had been anticipated. Certainly such investment of surplus funds in a type of property whose value is known is a safer outlet for surplus funds of most farm people than is the purchase of stocks and bonds of enterprises they know little about. There is, however, an alternative and safe outlet for surplus funds, as is discussed in a later section, namely, government bonds, federal-land-bank bonds, and similar securities.

We have discussed at length the purposes and dangers in borrowing for land purchase. These considerations may have little bearing on the advisability of borrowing for short periods for purposes of production. Here the likelihood of large and unpredictable changes in the general price level is much less. The major concern is with the probability of being able to make a profit on the funds so used and with timing the loan in such a way as to minimize interest charges and make repayment possible at the time agreed upon. There is, to be sure, considerable risk

of failure in production and of sudden price changes. Fluctuations in production and prices, however, are likely to average out over a period of two or three years. Also the amounts involved for such production loans are seldom as large in proportion to prospective earnings over the years as are those resulting from purchases of land. Some dangers do exist, however, in the purchase of heavy equipment in periods of high prices with plans for making payment over a period of years. The purchase of tractors, automobiles, and similar equipment contributed in no small measure to the financial difficulties of farmers in 1920 and 1921. The precipitous drop in farm prices in August, 1920, found many with undesirably heavy short- and medium-term commitments. Many of these had later to be converted into mortgage debt and thus contributed to the continued rise in mortgage debt after farm prices and land prices had begun their downward trend.

INTEREST ON FARM LOANS

Average rates of interest charged on farm-mortgage loans in California stood at 6.9 per cent in 1910, the earliest year for which estimates are available. There was little change until 1934, when they first dropped below 6.5 per cent. They reached a low of 5.6 per cent in 1938, but increased slightly in 1940 to 5.7 per cent.[19]

During recent years the rates charged by the federal land banks throughout the country have been reduced below the market rate by special act of Congress. Land-bank rates reached their peak in 1921, when they stood at 6 per cent (their legal maximum). Thereafter they declined gradually with the improving salability of land-bank bonds, the larger availability of low-cost funds, and certain special guarantees and aids provided by the federal government. By 1935 the average rate in California stood at 4.9 per cent, probably the lowest figure for these farm-mortgage loans in the history of the state (table 4). Thereafter, under the general easy-money policy of the government, together with interest guarantees on land-bank bonds, interest rates fell to levels far below those of any previous period. For land-bank borrowers, the contract rate of interest is now 4 per cent on loans made through most national farm loan associations, 4¼ per cent on loans made under special authority through associations having stock of impaired value, 4½ per cent on loans made directly to the borrower by the bank and not through an association, and 5 per cent on commissioner loans. By act of Congress, however, the following reduced rates on both federal-land-bank and land-bank-commissioner loans (regardless of the rate written on the

[19] Horton, Donald C., Harald C. Larsen, and Norman J. Wall. Farm-mortgage credit facilities in the United States. U. S. Dept. Agr. Misc. Pub. 478:227–28. 1942.

mortgage) are in effect until July 1, 1944: federal-land-bank loans through national farm loan associations, 3½ per cent; loans under special authority through associations with impaired stock, 3¾ per cent; direct loans, 4 per cent; commissioner loans, 3½ per cent.[20]

TABLE 4

AVERAGE RATES OF INTEREST CHARGED ON FARM-MORTGAGE LOANS RECORDED ANNUALLY IN CALIFORNIA, 1917–1935

Year	Individuals	National and state banks	Insurance companies	Federal land bank and land bank commissioner	Joint-stock land banks	Others	All
	per cent	*per cent*	*per cent*	*per cent*	*per cent*	*per cent*	*per cent*
1917	6.3	6.4	7.5	5.0	—	6.5	6.4
1918	6.4	6.8	6.9	5.4	—	7.4	6.5
1919	6.3	6.9	7.0	5.5	—	7.2	6.6
1920	6.4	6.9	7.4	5.6	6.0	6.7	6.6
1921	6.6	7.1	7.5	6.0	6.0	6.9	6.9
1922	6.7	6.9	7.1	5.7	6.0	6.7	6.7
1923	6.6	6.9	6.8	5.5	6.0	6.4	6.7
1924	6.7	6.9	7.1	5.4	6.0	6.9	6.8
1925	6.6	7.0	6.9	5.4	6.0	6.5	6.7
1926	6.6	6.9	6.5	5.5	6.0	6.7	6.7
1927	6.6	6.9	7.4	5.3	6.0	6.5	6.6
1928	6.6	6.7	6.6	5.0	6.0	6.5	6.6
1929	6.5	6.7	6.4	5.3	6.0	6.5	6.6
1930	6.6	6.8	6.4	5.5	6.0	6.6	6.7
1931	6.6	7.0	6.4	5.5	6.0	6.7	6.7
1932	6.5	6.7	6.7	5.5	5.8	6.6	6.6
1933	6.4	6.5	6.9	5.1	6.0	6.5	6.2
1934	6.1	6.3	5.5	5.0	6.0	5.8	5.5
1935	6.0	6.4	6.6	4.9	6.0	6.1	5.9

Source of data:
United States Bureau of Agricultural Economics. Farm-mortgage recordings in California. p. 6. Washington, D. C. March, 1939. (Mimeo.)

The special rates last mentioned are made possible only by subsidies from the federal government, and unless other action is taken in the meantime the contract rates written into the mortgages will again come into effect on July 1, 1944.

Specific tabulations of the interest rates in California charged by the various lending agencies from 1917 to 1935 (the only period for which these data are available) are shown in table 4.

Interest rates on farm mortgages are about as favorable as those to any group of borrowers. For the nation as a whole and as an average for all classes of lenders, rates had dropped from approximately 6 per cent in 1929 to around 5 per cent in 1938. The contract rate of 4 per cent on

[20] Farm Credit Administration, 11th District. Summary of activities. p. 3. Berkeley, California. April 15, 1941.

federal-land-bank loans was reported in 1939 as the lowest mortgage rate available to any class of individual borrowers in the country. The average rate of 5.25 per cent paid on mortgages in 1937 was lower than the average of 5.90 per cent paid on mortgages on urban properties and 5.28 per cent for all industrial enterprises. The average farm-mortgage rate was lower than for any important enterprise except the 4.55 per cent paid on long-term indebtedness of railroads and 4.71 per cent on public utilities.[21]

The exceedingly favorable situation with respect to terms and interest rates on farm-mortgage loans may well be stressed at this time since they make unlikely a degree of federal relief in any succeeding period comparable to that afforded in the depression of the thirties. Not only was the interest rate lowered, often by as much as one third, but long-term amortized loans were introduced on a scale previously unknown in this country in the field of farm loans. Such relief was made possible through the existence of abnormally low rates for money generally and the fact that important and overdue improvements in the provision of farm-mortgage credit were put into effect; there was also a substantial amount of federal subsidy.

A policy of subsidizing interest rates in normal times is not to be recommended since it tends to stimulate borrowing and may lead to the placing of excessive valuations on land. Such higher valuations are of benefit only to those who own land at the time the increase occurs since later purchasers have discounted the advantage through the higher price paid and may actually suffer serious loss if the subsidy is later withdrawn. If such a subsidy is continued indefinitely, it may operate merely to maintain an artificial level of land prices which will benefit no one once the land has changed hands and the interest-rate subsidy has been translated into higher land prices.

It would seem the part of wisdom, therefore, for farmers and the government to foster in normal times an efficient lending procedure operating on a self-supporting basis and providing to farmers the lowest rates of interest and the most favorable terms compatible with conditions in the money market. Under such a policy, special aid may be warranted in periods of serious distress. Credit institutions which require continuous subsidization have been found in the past to be in danger of adverse legislative action withdrawing the subsidy and in some cases wrecking the institution. This has, in fact, been the fate of most of the state farm loan agencies set up in this country.

The debt situation of American farmers is now the most favorable that

[21] Farm Credit Administration. Farmers' interest bill lowered. Press Service 9–54. March 20, 1939. (Mimeo.)

it has been in a quarter of a century. If the proceeds of currently better incomes can be used wisely for the reduction of existing mortgage debt and the accumulation of reserves, American agriculture may well come out of this period in the strongest financial position it has ever held. But if the present favorable terms and interest rates lead it into extensive speculation and borrowing, the burden in any succeeding serious depression may be even more onerous than that of the thirties.

THE PROBLEM OF RESIDENTIAL AND SPECULATIVE VALUES IN LANDS

There are two fairly distinct bases for value in farm lands. One is the present and prospective net income from farm production. The other is a value resting upon its desirability as a place of residence or its potentialities as a producer of wealth of some other kind. Thus lands located in an area of possible or probable oil development are likely to be valued at more than the present or prospective farm-production incomes would warrant. Lands near enough to cities to be likely areas for home or industrial sites are likewise apt to be overvalued on the basis of current earnings from farm products.

The values which are not based upon returns from farm production may be, and often are, substantial and justifiable. They are apt to be somewhat more speculative, however. Those based upon farm production are speculative in that prices or production or both may fluctuate from period to period. Nevertheless, there will normally be some production and some continuing income which can be realized without selling the property itself. To realize the other values and income in cash, however, the property must usually be sold. Residential values may, of course, be in the form of satisfactions to the farm operator and his family. They are based upon an income which actually exists, but which is not in cash and which is consumed continuously by the farm family as a part of its real income. While such real income is a warrantable basis for value in land, it is not a suitable basis for credit unless the farm operator has from other sources than the farm a reasonably sure source of income with which to carry it. It is in a sense a luxury which is entirely commendable provided the farm family has sufficient capital to pay outright for the value attributable to this kind of income and, in addition, enough to provide a reasonable margin of safety on that part of the land value attributable to net income from farm production.

Thus a farm may be capable of earning a return on $10,000. It is, however, in an attractive location where schools, roads, churches, and other facilities are good or where there are prospects of speculative gains from further development. Enough people want these added advantages

so that prices of this and comparable farms are bid up to $15,000. This added $5,000 may be a wise investment in better family living provided the buyer owns it outright or has outside income to take care of it. It is not a suitable basis for credit which is to be serviced by income from the products of the farm. Such a farm might warrant, on a 50 per cent basis, a loan of $5,000. It would not warrant a loan of $7,500 unless outside sources of income are clearly in prospect. To make the larger loan is to endanger the borrower and very possibly to involve the lender in proceedings to force the sale of the property.

In a similar manner, lands which have prospects of higher values through residential development, oil discoveries, or prospective new irrigation enterprises may be entirely warrantable speculative investments, but these prospects cannot be regarded as a good basis for the ordinary types of farm loan. These are made for production of agricultural crops, and the service charges on them are intended to be met by the income from such production. They do not contemplate sale of the property for satisfaction of the loan.

This distinction is especially important in times like the present when attention is apt to be focused upon the selling prices of land or its merits as an offset to possible depreciation in the value of money rather than upon its current and prospective earning power. In land as in stocks, investments based upon these considerations may well be warranted provided the purchaser is able to pay cash in full or at least to make a very large down payment and does not have to bid too high for the thing purchased. If either lands or stocks are owned outright, they may shrink in value but the shrinkage will not result in disaster or unbearable burdens of debt.

Estimates of probable net earnings from farm production must also, of course, be considered with special care in times like the present if long-term loans are involved. Such loans call for a long series of payments which may have to come out of earnings much smaller than those of the present time. Where mortgage loans are already in existence, or are made at the present time, this danger can be lessened by accumulating reserves to meet possible later deficits in income. The federal land banks have special provisions for this. For loans from other agencies, reserves can be built up in government bonds or similar forms of saving.

The basic principle involved is that speculative values not based upon continuous income from production and values based upon noncash income, such as attractiveness for residential purposes, should not be used as a means of securing debts unless the borrower is prepared to face the prospect of enforced sale and the creditor to force such sale if necessary.

SAVINGS AND THE USE OF CREDIT

As was shown in an earlier section, net farm incomes are running larger than in any period since 1919. Cash expenses have not yet caught up with them. As a consequence, farm families have a greater opportunity for debt retirement and the accumulation of savings than they have had in more than twenty years.

The responsibility for large-scale buying of war bonds and stamps rests alike on farm and nonfarm families. There is every reason to expect, as in the last war, generous and patriotic response on the part of farm people.

Although it may be safely assumed that large amounts will be put into this wholehearted support of the war effort, the present period offers one of the best opportunities this generation has seen for reducing farm indebtedness and getting into a strong position to meet the difficult times that may be ahead. That farmers are taking advantage of this possibility is evident in the record of advance payments and pay-offs on mortgage loans due the federal land banks. Especially favorable arrangements have been made whereby borrowers from that agency may make advance payments which can in case of need be drawn upon to meet future installments and which otherwise will operate to advance the retirement of the mortgage. Such accumulations draw interest at the prevailing rate of the land bank and thus serve to reduce the interest load borne by the borrower. Furthermore, mortgages are being retired at a rate of more than 500 per month (for the Eleventh Farm Loan District as a whole).

In general, the farm-mortgage situation, both in California and in the United States, is getting into a more wholesome condition than for many years. Much of the mortgage debt has been converted to amortized long-term form. In 1940, federal-land-bank and land-bank-commissioner loans in California amounted to 135 million dollars as compared to 58 millions for land-bank and joint-stock-land-bank loans in 1930 and 11 millions in 1920.[22] All of these are amortized long-term loans. In addition, significant amounts of insurance-company and "other-lender" loans have been converted to an amortization basis. On January 1, 1940, total mortgage loans for the state amounted to 542 million dollars, of which 393 millions was held by individuals, banks, and others, and 13 millions by life-insurance companies.

For the United States, farm-mortgage loans had been reduced by January 1, 1940, to 7 billion dollars, the lowest figure since 1918, and nearly 4 billions less than the peak amount of nearly 11 billions in 1923.

[22] United States Bureau of Agricultural Economics. Agricultural loans in California (1942). p. 2. 1942. (Mimeo.)

Not all farms are mortgaged. In California about half of the owner-operated farms are thus encumbered. For farm families whose farms are not mortgaged, the current situation offers better than usual opportunities to accumulate a reserve. This can be done with benefit both to themselves and to the war effort. A major problem of national management at the present time is that of absorbing excess purchasing power in the hands of consumers. National income has risen from around 60 or 70 billions to well over 100 billions. At the same time, goods available for purchase are substantially fewer than they were a few years ago. If much of this increased purchasing power finds its way into the consumer-goods market, there will be excessive competition for a sharply limited supply of goods. Prices will surge upward despite controls, and quality will deteriorate.

If, instead, nearly all of the free purchasing power except that required for buying necessities can be absorbed in debt retirement, tax payments, and savings, income receivers will buy their necessities at lower prices and will acquire important volumes of savings, which not only will buy more and better goods later, but will aid substantially in meeting the postwar readjustment.

There would be an enlarged potential demand for many commodities even if the national income had not grown so enormously. Many of the most expensive items of family equipment, such as automobiles, radios, refrigerators, and washing machines, are not now being manufactured. Hence, some of the income formerly used in ordinary living is now being freed for purchase of other goods or for taxes and saving. The absorption of such funds will have to be very drastic and comprehensive if serious price inflation is to be avoided.

As a whole, farmers have been for many decades interest payers instead of interest receivers. The annual payments of interest have been a heavy drain on farm incomes. The accumulation of substantial savings in the form of war bonds could simplify very greatly the financing of farm production and at the same time provide an interest income that would offset much of that paid out on short-term loans. For the present there are limitations on the pledging of some types of federal securities as collateral since they are nonnegotiable, and borrowing on collateral of that kind would be inflationary. It is likely, however, that once the period of war financing is over, assets of that kind can be used in place of usual types of security in obtaining loans for agricultural production. Thus the ordinary financing of farm operations for farmers owning such securities could be much simplified while interest charges on similar amounts would be largely offset. For example, a loan of $1,000 for 4 months at 6 per cent would require less interest payment than would be

brought in by $1,000 in bonds at 2½ or 3 per cent. If held to maturity, there would be no loss on the face amount of the bond even if the bond market should decline in the meantime.

After the close of World War I, many farmers held substantial amounts of Liberty Bonds. Unfortunately, great numbers were persuaded to part with these for stock purchase and other dubious financial ventures. Promoters and stock salesmen found farmer owners of Liberty Bonds a particularly fruitful market for the things they had to sell. In the light of longer experience, it seems evident that most former holders of such securities would have done better to hold them, except where they had debts to pay, even though the rates of interest were less attractive than those prevailing or expected in some other forms of investment.

APPENDIX

WHAT CALIFORNIA FARMERS THINK ABOUT THE USE OF CREDIT IN WARTIME

During the winter of 1941–42, representative farm men and women in forty-two of California's fifty-eight counties assembled for one-day conferences on credit use and related problems. These conferences were arranged by the Agricultural Extension Service of the University of California and were attended by 2,553 farm men and women, invited for the specific purpose of discussing these problems and making recommendations suited to conditions in their respective counties. Lectures and other formal arrangements were limited to the minimum needed for bringing out the more pertinent facts of the situation. There was no attempt to influence their thinking or conclusions, except for such implications as might arise from the facts presented.

After a brief presentation of charts and data by University representatives and others, each conference broke up into several committees, one of which discussed farm finance and credit.

The committees drew up resolutions and recommendations which were then passed upon by the conference as a whole. The following summary gives the gist of the conclusions arrived at in the forty-two conferences. This summary covers for the most part only the results of the finance committees, since the other subjects dealt with lie outside the scope of this circular.

There is a surprising uniformity in points considered most important by these various groups of farm people. All were impressed by the long history of wartime inflation and deflation and the dangers of unwise

borrowing in periods of high prices. While it is difficult to classify accurately the numerous recommendations with their wide variations in wording, the following points are the ones appearing most frequently in the summaries of the conferences—the ones that seemed to stand out in the minds of the farm people:

1. Recommendation that farm families use the increased incomes of the war period to reduce their long-term debts, if they have any, and to put themselves in strong financial condition. (Presented and adopted at thirty-six of the forty-two conferences.)
2. Recommendation that loans be based on long-term, or "normal," valuations of land rather than on any inflated valuations that may arise as a result of war conditions. (Presented and adopted at twenty-nine conferences.)
3. Recommendation that financial reserves be built up during the present period of higher incomes. (Presented and adopted at twenty-one conferences.)
4. Recommendation that farmers buy war bonds. (Covered in principle in practically all of the conferences, but mentioned specifically in only eighteen.)
5. Recommendation that special efforts be made both by lending agencies and by farmers to discourage speculative purchase of land. (Presented and adopted at fifteen conferences.)

Many other points were discussed and acted upon by one or more of the county meetings. Nine conferences mentioned specifically a feeling that existing credit agencies are adequate and that credit should be secured through them rather than by tapping new sources or drawing significant amounts of outside private funds into the industry. A few stressed the importance of preventing inflation. In general, however, the technical nature of this problem kept it out of active discussion. There was considerable stress on limiting short-term credit to farmers competent to use it effectively but, with that limitation, a feeling that short-term loans for production should be both granted and taken freely with a view to enlarging production on existing units. There appeared to be little feeling that any shortage of such funds is in prospect. Several conferences recommended against the advance of credit and use of materials for operations by inexperienced people or on lands of dubious productivity.

Some groups recommended more conservative loaning on one-crop farms than on those which are diversified. The need for enlarging or rounding out some farm units was recognized, and in several conferences

was regarded as a legitimate basis for borrowing for land purchase if the obligations assumed are not so large as to endanger the operator's solvency.

Interest rates came in for relatively little discussion, and the various resolutions reflect some differences of opinion. A few conferences recommended continuance of the subsidized interest rates now in effect, while others urged either early or gradual return to a nonsubsidy basis.

In six counties specific recommendation was made that farmers now holding short-term mortgages arrange to refinance these on a long-term amortized basis. One county group suggested repeal of the Frazier-Lempke amendment to the federal bankruptcy act on the ground that it tends to inhibit normal new financing.

In general, the tone of the conferences and of the resolutions passed looked strongly in the direction of conservative financing in the present period. Major stress was on repayment of debts, accumulation of reserves, purchase of bonds, confining loans to qualified borrowers, and putting the house in order for whatever adverse conditions may arise in the postwar period. For the short run, nearly all of the conferences favored the use of production credit where it can be made to contribute to the war program, but urged caution in regard to becoming overextended, especially in speculative lines.

In the sections dealing with family living, emphasis was placed upon accumulation of reserves in the form of war bonds and stamps, life insurance, savings accounts, tax-savings certificates, and the creation of family cash reserves. It was pointed out that money saved in these ways will not only help to prevent inflation but can be used to better advantage in improving family living when new and better equipment, furnishings, and building materials become available after the close of the war. It was felt that long-term indebtedness for household or family living purposes should be discouraged, that credit should not be used to raise the standard of living, and, in general, that installment credit or easy-payment plans should not be used. Since little new household equipment will be made, present equipment should be put in good repair. Stress was also placed on the production for home use of milk, meat, poultry, eggs, fruits, berries, and vegetables.

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